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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,578	07/12/2001	Richard C. Eden	IS9-017	2358

21567 7590 05/08/2003

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EXAMINER

NGO, NGAN V

ART UNIT PAPER NUMBER

2814

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/904,578	EDEN ET AL.	
	Examiner	Art Unit	
	Ngan Ngo	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30,32-34 and 67-85 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30,32-34 and 67-85 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>12</u> | 6) <input type="checkbox"/> Other: _____ |

The amendments filed February 28, 2003 and April 15, 2003 has been entered and made of record as paper no. 11 and 13, respectively.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-30, 32-34, and 67 to 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein et al (US-6,278,264, of record).

Burstein discloses an integrated circuit assembly comprising a flip chip (16) having a plurality of field effect transistors and a package (44) connected to the field effect transistors formed in the flip chip. Note line 7 of column 1 and lines 37-40 of column 2 of Burstein. Since the transistors are used to form power transistors (line 54, column 7), it would have been obvious to one of ordinary skill in the art that the power transistors can conduct current exceeding one Amperes. The solder bumps 56 in Burstein's device is obviously connected to the sources and drains of the power transistor in order to connect the current to the printed circuit board 46.

In re claim 17, Figures 3A and 6 clearly show the source and drain contacts are adjacent to and over substantially an entirety of the surface and configured to conduct power current.

In re claims 2-16, 18-34, and 67-85, figures 3A-8G discloses all of the connections between the field effect transistor and the printed circuit board.

Applicant's arguments filed February 28, 2003 have been fully considered but they are not persuasive.

Line 54, column 7 of Burstein et al clearly discloses that the transistors in IC chip 42 are power transistors. The fact that Burstein is directed towards a switching regulator does not exclude the fact that power transistors are formed in the IC Chip. Claims 1 and 17 do not exclude the device to be used as a regulator. It is well known in the art that power transistors are associated with high current which is greater than 1 Ampere. Note that claim 17 does not even require the current to be 1 ampere as argued by Applicant. The newly cited references clearly teach that power transistors have current higher than 1 ampere. Note line 50, column 1 of Easter, line 35, column 6 of Shushurin, line 2, column 7 of Hideshima et al, line 25, column 3 of Takahama, line 47, column 1 of Nakanishi et al, line 25, column 1 of Yamazaki et al. There is nothing new about power transistors having current greater than 1 ampere.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Examiner Ngan Ngo at telephone number (703) 308-4938. The fax number for the Art unit is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


Ngan Van Ngo
Primary Examiner

Ngan Ngo

May 3, 2003